

WHAT IS CLAIMED IS:

1. A method for preparing a program for die machining, said program repeating a plurality of machining processes along a predetermined closed machining path during wire-cut electric discharge machining to thereby machine a workpiece into a die, said method comprises a step of preparing a program for die machining so that approach points, which are machining-start points on the machining path, are different from each other in different machining processes.

5 2. The method according to claim 1, wherein said program comprises a program in which a plurality of finish machining processes are repeated after coreless machining.

10 15 3. The method according to claim 1, further comprising steps of obtaining points equally dividing a circumferential length of the closed machining path by a repetition number of the machining processes; and defining each of the obtained points as an approach point for a different machining process.

20 25 4. The method according to claim 3, wherein the defining step includes a step of, when the obtained point is positioned within a first predetermined distance from a corner of the machining path or a curved section thereof having a curvature larger than a predetermined value, defining, as an approach point, a point away from the corner or the curved section along said predetermined machining path by a second predetermined distance.

30 35 5. An apparatus for preparing a program for die machining used in wire-cut electric discharge machining based on a machining shape input thereto, said apparatus comprising machining path defining means for defining a closed machining path from the machining shape input thereto; and program preparing means for preparing a program for die machining, said program repeating a plurality of machining processes along the closed machining path to thereby machine a workpiece into a die,

wherein said program preparing means prepares the program so that approach points, which are machining-start points on the machining path, are different from each other in different machining processes.

5. The apparatus according to claim 5, wherein said program comprises a program in which a plurality of finish machining processes are repeated after coreless machining.

10. The apparatus according to claim 5, further comprising approach point defining means for obtaining points equally dividing the machining path by an input repetition number of the machining processes and defining each of the obtained points as an approach point for a different machining process.

15. The apparatus according to claim 7 wherein, when the obtained point is positioned within a first predetermined distance from a corner of the machining path or a curved section thereof having a curvature larger than a predetermined value, said approach point defining means defines, as an approach point, a point away from the corner or the curved section, along the predetermined machining path, by a second predetermined distance.

20. A computer readable storage medium for storing a program for preparing a program for die machining used in wire-cut electric discharge machining, said program repeating a plurality of machining processes along a predetermined closed machining path to thereby machine a workpiece into a die, said program being prepared so that approach points, which are machining-start points on the machining path, are different from each other in different machine processes.

25. The storage medium according to claim 9, wherein said program comprises a program for preparing a program in which a plurality of finish machining processes are repeated after coreless machining.

30. A method for carrying out die machining by

wire-cut electric discharge machining, said method comprises a step of repeating a plurality of machining processes along a predetermined closed machining path so that approach points, which are machining-start points on the closed machining path, are different from each other in different machining processes, thereby machining a workpiece into a die.

5 12. The method according to claim 11, wherein said die machining comprises machining in which a plurality of 10 finish machining processes is repeated after coreless machining.

15 13. The method according to claim 11, further comprising steps of obtaining points equally dividing a circumferential length of the closed machining path by a repetition number of the machining processes; and defining each of the obtained points as an approach point for a different machining process.

20 14. The method according to claim 13, wherein the defining includes a step of, when the obtained point is positioned within a first predetermined distance from a corner of the machining path or a curved section thereof having a curvature larger than a predetermined value, defining, as an approach point, a point away from the corner or the curved section, along said predetermined 25 machining path, by a second predetermined distance.

15. A wire-cut electric discharge machining apparatus comprising said apparatus according to claim 5.